REMARKS

Amendments to the Claims

The amendments above have resulted in new wording for claims 1-4 and the addition of new claims 5-11. Care has been taken to avoid the introduction of new matter. The amendment of claims 1-4 uses key concepts of those claims while putting them into better form for a patent. A study of the amendment will show that no new material has been introduced.

In claim 1, we now require that the dispersing of spectral energy from each pixel go into resolved spectral components in a continuous spectrum of interest, with "such resolved spectral components having a distribution across the entire spectrum typified by an output from a diffraction grating". Support for this limitation is provided in the use of a diffraction grating called out in the application, for example, in Fig. 1, as item 14 and accompanying text on p. 3 line 28 to page 4, line 1.

New method claim 5 and new apparatus claim 7 require use of a diffraction grating, and a diffraction grating was implicitly recited in claim 1 as a spectral energy dispersion device; a grating is shown in Fig. 1 as item 14, described on page 3, lines 10-11 and p. 3 line 28 to page 4, line 1; see also page 5, lines 7-10.

New method claim 6 and new apparatus claim 11 require spectral energy content in the x-ray region. Support for this limitation is found on page 6, line 29 through page 7, line 1.

New apparatus claim 7 mirrors the method claim 1, and additional support for the existence of apparatus lies throughout the application including at page 7, lines 1-2.

New apparatus claim 8 requires a fiber optic bundle, which is described on page 5, lines 4-9 and Fig. 3, items 31 and 32.

New claim 9 (as well as amended claim 3) requires the spectrophotometer to include a linear array of photodetectors. Support for this limitation includes the original claim 3 as well as item 16 of Figure 1 and item 16' of Figure 2 as well as accompanying text throughout page 4.

New claim 10 requires a modulator for the diffraction grating, and the concept of modulating the diffraction grating is disclosed in original claim 4.

Claim rejections

The Examiner has objected to the claims. Applicants acknowledge with deep appreciation the suggestions of the Examiner for amendment, which have been followed in providing the above amendments.

The Examiner has rejected all claims as anticipated by Ammeter. This rejection is respectfully traversed as applied to the claims as amended herein, because, among other reasons, Ammeter is directed to performing spectral analysis on each pixel using the traditional "L,a,b" tri-chromatic or other confined sampled color space approaches. See page 4, lines 53-67, referring to "L,a,b" color space. In contrast the presently claimed technology requires that spectral energy of each pixel is dispersed into resolved spectral components having a distribution across the entire spectrum typified by an output from a diffraction grating (claim 1), or requires use of the diffraction grating itself to produce resolved spectral components (new claim 7).

This approach means that a dramatically wider range of spectral components are produced by the subject matter claimed herein. The traditional approach, typified by Ammeter, is recited as prior art in the application at pages 1 and 2.

CONCLUSION

It is respectfully submitted that all pending claims are in condition for allowance. Reconsideration of the claims and a notice of allowance is therefore requested. If the Examiner has any questions in regard to this matter, Applicants respectfully request that the Examiner contact the Applicants at the telephone number listed below.

Applicants do not believe an extension of time is required, or any fees due. However, in the event Applicants have overlooked the need for an extension of time, this conditional petition for an extension of time is requested, and Applicants request that any fees, which might be required for the timely consideration of this application, be communicated to the applicants for prompt payment.

Date: July 15, 2008

Respectfully submitted,

Eric Rosenthal
Creative Technology, LLC
191 Beacon Hill Road
Morganville, NJ 07751
Voice: 732-817-1720
Mobile: 732-580-9555
Fax: 732-817-1729